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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,236

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Morio Suehiro

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EXAMINER

MAESTRI, PATRICK J

ART UNIT

PAPER NUMBER

3633

NOTIFICATION DATE

DELIVERY MODE

04/28/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/593,236	Applicant(s) SUEHIRO ET AL.	
	Examiner PATRICK MAESTRI	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 11, 2010 has been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the removability of the first and second anchor bolts must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 7, 8, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Eischeid (US Patent No 5,644,885).

Referring to claim 1: Eischeid teaches a first anchor bolt configured to be installed projecting outside of a concrete frame (figure 15, item 16); a second anchor bolt that is eccentrically positioned to the axis of the first anchor bolt (figure 15, item 12); and a connecting part that connects the first anchor bolt and the second anchor bolt, the first anchor bolt and the second anchor bolt being attached to the connecting part (figure 15, item 17), the connecting part extends radially from the first anchor bolt to and past the second anchor bolt (figure 15), the second anchor bolt being located in a radial center of

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the connecting part, thereby reducing the bending moment that is exerted locally on the connecting part when a load is applied on the first anchor bolt (figure 15).

Referring to claim 2: Eischeid teaches all the limitations of claim 1 as noted above.

Additionally, Eischeid teaches a planar configuration of the connecting part is made to be a polygonal or circular shape, thereby increasing the compressive force transfer area (figure 16).

Referring to claim 3: Eischeid teaches all the limitations of claim 1 as noted above.

Additionally, Eischeid teaches the connecting part is formed to have top and bottom surfaces of a polygonal or circular shape, and the second anchor bolt is positioned at the center of the connecting part (figure 16).

Referring to claim 7: Eischeid teaches a first anchor bolt installed projecting outside of a concrete frame (item 16); a second anchor bolt that is eccentrically positioned to the axis of the first anchor bolt (item 12); and a connecting part for connecting the first anchor bolt and the second anchor bolt, the first anchor bolt and the second anchor bolt being attached to the connecting part (item 17), wherein the center of the connecting part and the axis of the second anchor bolt are coaxial (figure 16), and a planar configuration of the connecting part is formed in a polygonal or circular shape, and the first anchor bolt is positioned toward a radial edge of the connecting part (figure 16).

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Referring to claim 8: Eischeid teaches all the limitations of claim 7 as noted above.

Additionally, Eischeid teaches the planar configuration of the connecting part is made either a circular, triangular, quadrangle, or a polygonal configuration to increase an adhesive area of the composite anchor bolt with the concrete (figure 16).

Referring to claim 13: Eischeid teaches all the limitations of claim 7 as noted above.

Additionally, Eischeid teaches at least one of the first anchor bolt and second anchor bolt is removably attached to the connecting part (figure 15, item 16).

Referring to claim 14: Eischeid teaches a first anchor bolt installed projecting outside of a concrete frame (item 16); a second anchor bolt that is eccentrically positioned to the axis of the first anchor bolt (item 12); and a connecting part for connecting the first anchor bolt and the second anchor bolt, the first anchor bolt and the second anchor bolt being attached to the connecting part (item 17), wherein the connecting part and second anchor bolt are formed together in a T-shape configuration, and the first anchor bolt is placed at an edge of the connecting part (figure 15).

Referring to claim 15: Eischeid teaches all the limitations of claim 14 as noted above.

Additionally, Eischeid teaches at least one of the first anchor bolt and second anchor bolt is removably attached to the connecting part (figure 15, item 16).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eischeid in view of Kubler et al. (US Patent No 6,604,899) (“Kubler”).

Referring to claim 4: Eischeid teaches all the limitations of claim 1 as noted above.

Eischeid does not teach the connecting part has an injection hole for an adhesive and an air hole. However, Kubler teaches an adhesive and air hole in an anchor bolt (figure 1).

It would have been obvious to someone with ordinary skill in the art at the time of the invention to combine the anchor bolt as taught by Eischeid with the air and adhesive holes as taught by Kubler in order to add adhesive to the connection and completely seal out any moisture that could penetrate the connection and cause a crack in the concrete.

6. Claims 5, 6, 10, 11, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eischeid.

Referring to claims 5, 6, 10, 11, 19, and 20: Eischeid teaches all the limitations of claims 1 and 7 as noted above. Eischeid does not specifically teach diameters of the tow bolt being equal or different. However, it would have been obvious to someone with ordinary skill in the art at the time of the invention to choose specific diameters based on load requirements. It is common practice to design an anchor to meet its holding requirements.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eischeid in view of Holdredge (US Patent No 1,500,870).

Referring to claim 9: Eischeid teaches all the limitations of claim 7 as noted above. Eischeid does not teach a reinforcing portion is formed at a joining point between the second anchor bolt and the connecting part to compensate for a bending moment which is exerted locally on the joining point. However, Holdredge teaches a reinforcing portion is formed at a joining point between the second anchor bolt and the connecting part to compensate for a bending moment which is exerted locally on the joining point (figure 1, item 2).

It would have been obvious to someone with ordinary skill in the art at the time of the invention to create the anchor as taught by Eischeid with the characteristic of having a reinforcement as taught by Holdredge in order to create a greater bond between the

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connector plate and the anchor bolt. It is well known in the art that gusset type connections reduce localized stresses in right angle connections.

1. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suehiro (US Patent No 7,475,518) in view of Eischeid.

Referring to claim 16: Suehiro teaches a method of installing a composite anchor bolt comprising: preparing a composite anchor bolt including a first anchor bolt and a second anchor bolt positioned eccentrically in a direction perpendicular to each other, with a planar connecting part connecting the first and second anchor bolts, the first anchor bolt projecting on the outside of a matrix in which the composite anchor bolt is embedded and a second anchor bolt positioned eccentrically to the first anchor bolt relative to the planar connecting part projecting inside the matrix; removing a cylindrical or polygonal core from the reinforcement covering margin to confirm the position of the reinforcement within the matrix, when reinforcement is encountered in the anchor borehole position, the core corresponding to the shape of the connecting part, and surrounding the borehole; drilling a borehole for said-the second anchor bolt; and jointly attaching the composite anchor bolt (claim 1). Suehiro does not teach the connecting part extends radially from the first anchor bolt to and past the second anchor bolt. However, Eischeid teaches the connecting part extends radially from the first anchor bolt to and past the second anchor bolt (figure 15, item 17).

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It would have been obvious to someone with ordinary skill in the art at the time of the invention to combine the method as taught by Suehiro with the characteristic of having the connecting part extend past the second anchor bolt as taught by Eischeid in order to allow the first anchor bolt to be positioned on either side of the second anchor bolt and still be within the connector plate.

Referring to claim 18: Suehiro and Eischeid teach all the limitations of claim 16 as noted above. Additionally, Eischeid teaches a portion of the connecting part is projected outside from the concrete frame, and an equipment base is placed on the connecting part and attached with the first anchor bolt (figure 1).

2. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suehiro in view of Eischeid and Kubler.

Referring to claim 17: Suehiro and Eischeid teach all the limitations of claim 16 as noted above. They do not teach after the second anchor bolt is set into the drilled borehole, the adhesive is injected into an adhesive injection hole which is formed in the connecting part, air is released from an air hole which is formed in the connecting part, and the composite anchor bolt is attached. However, Kubler teaches a fastener with air and adhesive holes for injection of adhesive after the fastener is placed in the hole.

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It would have been obvious to someone with ordinary skill in the art at the time of the invention to combine the method of installing an anchor as taught by Suehiro and Eischeid with the step of placing adhesive in the hole through the injection hole as taught by Kubler in order to allow complete sealing of the hole without excess adhesive.

Response to Arguments

3. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK MAESTRI whose telephone number is (571)270-7859. The examiner can normally be reached on 9am-4pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on 571-272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. M./

Examiner, Art Unit 3633

/Brian E. Glessner/

Primary Examiner, Art Unit 3633